45. (New) The process according to claim 44 wherein the solvent is at least one component selected from the group consisting of water, methanol, ethanol, isopropanol, n-propanol, isopropyl ether, acetone and acetonitrile.

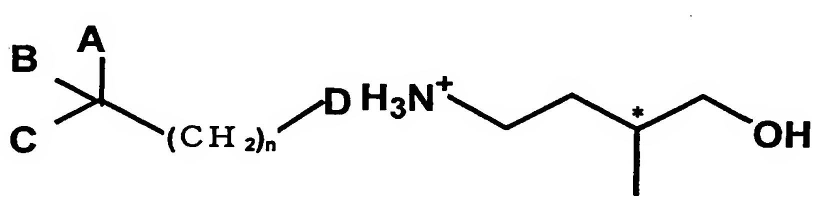
46. (New) The process according to claim 1 wherein the diastereomeric salt obtained is recrystallized by using a solvent to obtain a diastereomeric salt of higher optical purity.

47. (New) The process according to claim 46 wherein the solvent used for the recrystallization is at least one component selected from the group consisting of water, methanol, ethanol, isopropanol, n-propanol, isopropyl ether, acetone and acetonitrile.

48. (New) The process according to claim 1 wherein optically active 4-amino-2-methylbutane-1-ol is obtained by neutralizing the diastereomeric salt obtained or passing the salt through ion exchange resin.

49. (New) A salt of optically active 4-amino-2-methylbutane-1-ol with an optically active organic acid.

50. (New) The salt of optically active 4-amino-2-methylbutane-1-ol with an optically active 4-amino-2-methylbutane-1-ol according to claim 49 wherein the optically active organic acid is an optically active carboxylic acid, optically active sulfonic acid or optically active phosphonic acid and the structure of the salt is represented by the formula (4)



.... (4)

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wherein D denotes COO^-, SO_3^- or PO_3H^-; A, B and C each denote hydrogen, a substituted or unsubstituted, straight or branched chain alkyl group having 1-10 carbon atoms, halogen atom, alkoxy group, hydroxyl group, nitro group, carboxyl group, acyloxy group, or substituted or unsubstituted amino group, phenyl group or naphthyl group; the substituent in the alkyl group, amino group, phenyl group or naphthyl group is a straight or branched chain alkyl group having 1-10 carbon atoms, halogen atom, alkoxy group, hydroxyl group, nitro group, benzoyl group, carboxyl group, acyl group, methylthio group or sulfonic acid group; provided that A, B, C and $(CH_2)_n$-DH are not the same with each other at the same time; and n is 1 or 0, and * denotes asymmetric carbon.

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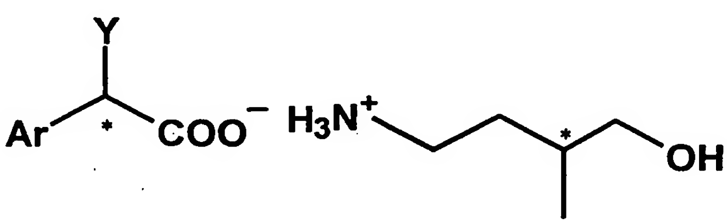
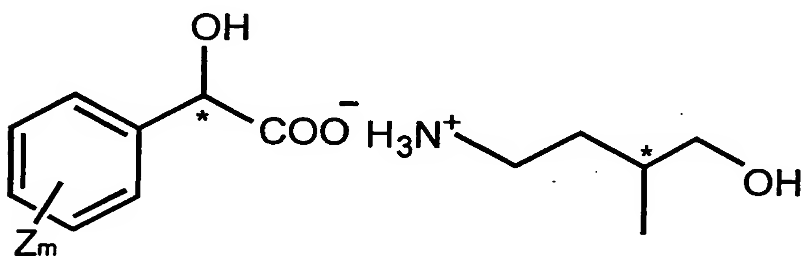
51. (New) The salt of optically active 4-amino-2-methylbutane-1-ol with an optically active organic acid according to claim 49 wherein the optically active organic acid is an optically active 2-aryl-2-substituted acetic acid and the structure of the salt is represented by the formula (5)



.... (5)

wherein Y denotes a straight or branched chain alkyl group having 1-10 carbon atoms, halogen atom, alkoxy group, acyloxy group or hydroxyl group; Ar denotes a substituted or unsubstituted phenyl group or naphthyl group; the substituent is a straight or branched chain alkyl group having 1-10 carbon atoms, halogen atom, alkoxy group, hydroxyl group, nitro group, benzoyl group, carboxyl group, methylthio group or sulfonic acid group, and * denotes asymmetric carbon.

52. (New) The salt of optically active 4-amino-2-methylbutane-1-ol with an optically active organic acid according to claim 49 wherein the optically active organic acid is an optically active mandelic acid derivative and the structure of the salt is represented by the formula (6)



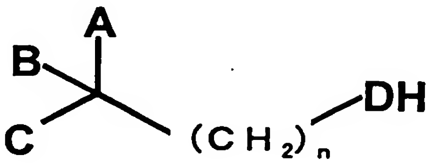
.... (6)

wherein Z denotes hydrogen or a straight or branched chain alkyl group having 1-10 carbon atoms, halogen atom, alkoxy group, hydroxyl group, nitro group, methylthio group or benzoyl group; * denotes asymmetric carbon; m is an integer of from 1 to 5 and; when m ≥ 2, Z may be same as or different from each other.

53. (New) A process for producing a salt of optically active 4-amino-2-methylbutane-1-ol with an optically active organic acid which comprises; treating racemic 4-amino-2-methylbutane-1-ol with an optically active organic acid to obtain a diastereomeric salt, crystallizing out the resulting diastereomeric salt, and subjecting the salt to solid-liquid separation.

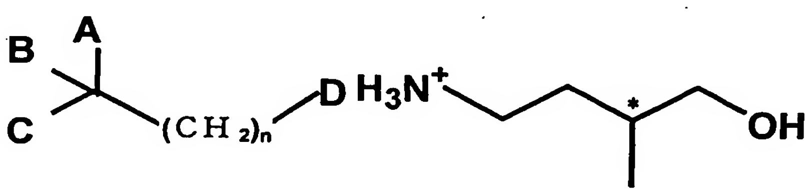
54. (New) The process according to claim 53 wherein the optically active organic acid is an optically active carboxylic acid, optically active sulfonic acid or optically active phosphonic acid represented by the formula (1) and the structure of the salt obtained is

represented by the formula (4)



.... (1)

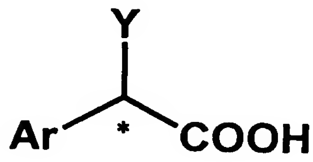
wherein D denotes COO^-, SO_3^- or PO_3H^-; A, B and C each denote hydrogen, a substituted or unsubstituted, straight or branched chain alkyl group having 1-10 carbon atoms, halogen atom, alkoxy group, hydroxyl group, nitro group, carboxyl group, acyloxy group, or substituted or unsubstituted amino group, phenyl group or naphtyl group; the substituent in said alkyl group, amino group, phenyl group or naphthyl group is a straight or branched chain alkyl group having 1-10 carbon atoms, halogen atom, alkoxy group, hydroxyl group, nitro group, benzoyl group, carboxyl group, acyl group, methylthio group or sulfonic acid group; provided that A, B, C and $(CH_2)_n$-DH are not the same with each other at the same time; and n is 1 or 0,



.... (4)

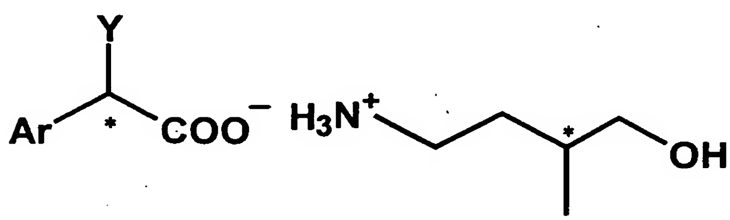
wherein A, B, C, D and n are the same as in the formula (1), and * denotes asymmetric carbon.

55. (New) The process according to claim 53 wherein the optically active organic acid is an optically active 2-aryl-2-substituted acetic acid represented by the following formula (2), and the structure of the salt obtained is represented by the formula (5)



.... (2)

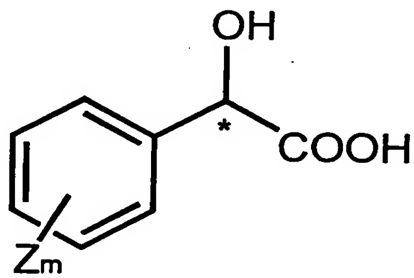
wherein Y denotes a straight or branched chain alkyl group having 1 to 10 carbon atoms, halogen atom, alkoxy group, acyloxy group or hydroxyl group; Ar denotes a substituted or unsubstituted phenyl group or naphthyl group; the substituent is a straight or branched chain alkyl group having 1-10 carbon atoms, halogen atom, alkoxy group, hydroxyl group, nitro group, benzoyl group, carboxyl group, methylthio group or sulfonic acid group; and * denotes asymmetric carbon,



.... (5)

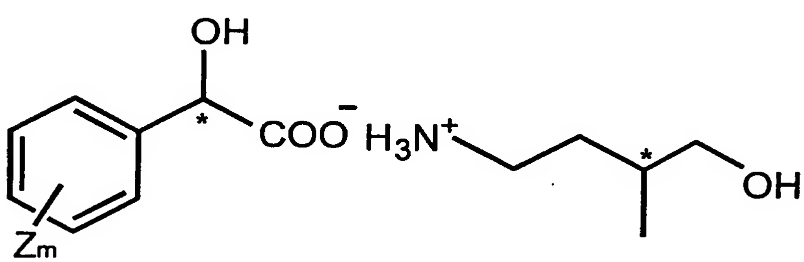
wherein Ar and Y are the same as in the formula (2), and * denotes asymmetric carbon.

56. (New) The process according to claim 53 wherein the optically active organic acid is an optically active mandelic acid derivative represented by the following formula (3) and the structure of the salt obtained is represented by the formula (6),



.... (3)

wherein Z is hydrogen or a straight or branched chain alkyl group having 1-10 carbon atoms, halogen atom, alkoxy group, hydroxyl group, nitro group, methylthio group or benzoyl group; * denotes asymmetric carbon; m is an integer of from 1 to 5 and; when $m \geq 2$, Z may be same as or different from each other,



.... (6)

wherein Z and m are the same as in the formula (3).

57. (New) The process according to claim 53 wherein the racemic 4-amino-2-methylbutane-1-ol is mixed with the optically active organic acid by use of a solvent, and mother liquor is removed at the time of the solid-liquid separation.

58. (New) The process according to claim 57 wherein the solvent is at least one component selected from the group consisting of water, methanol, ethanol, isopropanol, n-propanol, isopropyl ether, acetone and acetonitrile.

59. (New) The process according to claim 53 wherein the diastereomeric salt obtained is recrystallized by using a solvent to obtain a diastereomeric salt of higher optical purity.

60. (New) The process according to claim 59 wherein the solvent used for the recrystallization is at least one component selected from the group consisting of water, methanol, ethanol, isopropanol, n-propanol, isopropyl ether, acetone and acetonitrile.

61. (New) A process for producing optically active 4-amino-2-methylbutane-1-ol by using the salt according to claim 49.

62. (New) A process for producing optically active 4-amino-2-methylbutane-1-ol by using the salt obtained by the process according to claim 53.

63. (New) A process for producing optically active 4-amino-2-methylbutane-1-ol which comprises; bringing a diastereomeric salt of optically active 4-amino-2-methylbutane-1-ol and an optically active reagent for optical resolution into contact with a solvent and an alkali to decompose the salt, subjecting the resulting reaction mixture to solid-liquid separation to obtain a filtrate, and obtaining optically active 4-amino-2-methylbutane-1-ol from the filtrate.

64. (New) The process for producing optically active 4-amino-2-methylbutane-1-ol according to claim 63 wherein a filtration residue containing an alkali salt of the optically

active reagent for optical resolution is obtained by the solid-liquid separation, the filtration residue is brought into contact with a solvent and an acid, and the optically active reagent for optical resolution thus crystallized out is subjected to solid-liquid separation and recovered.

65. (New) The process for producing optically active 4-amino-2-methylbutane-1-ol according to claim 63 wherein the diastereomeric salt of optically active 4-amino-2-methylbutane-1-ol and an optically active reagent for optical resolution is brought into contact with a solvent and an alkali to decompose the salt, the solvent is replaced with an alcohol in which a solubility of an alkali salt of the optically active reagent for optical resolution is low, and an alkali salt of the optically active reagent for optical resolution and the optically active 4-amino-2-methylbutane-1-ol solution are subjected to solid-liquid separation to recover the alkali salt of the optically active reagent for optical resolution.

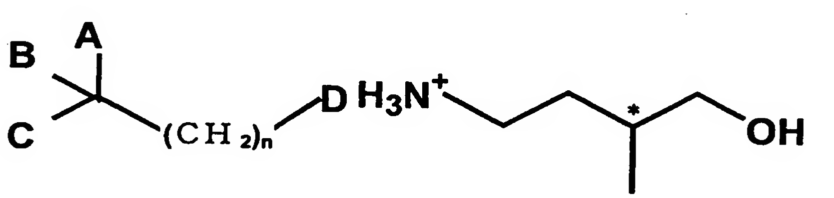
66. (New) The process for producing optically active 4-amino-2-methylbutane-1-ol according to claim 63 wherein the diastereomeric salt of optically active 4-amino-2-methylbutane-1-ol and an optically active reagent for optical resolution is brought into contact with an alcohol and an alkali metal alcoholate to decompose the salt, the alcohol is replaced with an alcohol in which a solubility of an alkali metal salt of the optically active reagent for optical resolution is low, and an alkali metal salt of the optically active reagent for optical resolution and an optically active 4-amino-2-methylbutane-1-ol solution are subjected to solid-liquid separation to recover the alkali metal salt of the optically active reagent for optical resolution.

67. (New) The process for producing optically active 4-amino-2-methylbutane-1-ol according to claim 63 wherein the diastereomeric salt of optically active 4-amino-2-methylbutane-1-ol

methylbutane-1-ol and an optically active reagent for optical resolution is brought into contact with water and/or an alcohol and an alkali metal hydroxide to decompose the salt, the water and/or the alcohol are replaced with an alcohol in which a solubility of an alkali metal salt of the optically active reagent for optical resolution is low, and an alkali metal salt of the optically active reagent for optical resolution and an optically active 4-amino-2-methylbutane-1-ol solution are subjected to solid-liquid separation to recover the alkali metal salt of the optically active reagent for optical resolution.

68. (New) The process for producing optically active 4-amino-2-methylbutane-1-ol according to claim 63 wherein the diastereomeric salt of optically active 4-amino-2-methylbutane-1-ol and an optically active reagent for optical resolution is a salt of optically active 4-amino-2-methylbutane-1-ol with an optically active organic acid.

69. (New) The process for producing optically active 4-amino-2-methylbutane-1-ol according to claim 63 wherein the diastereomeric salt of optically active 4-amino-2-methylbutane-1-ol and an optically active reagent for optical resolution is a salt of optically active 4-amino-2-methylbutane-1-ol with an optically active carboxylic acid, optically active sulfonic acid or optically active phosphonic acid represented by the following formula (4)



.... (4)

wherein wherein D denotes COO^-, SO_3^- or PO_3H^-; A, B and C each denote hydrogen, a substituted or unsubstituted, straight or branched chain alkyl group having 1-10 carbon atoms, halogen atom, alkoxy group, hydroxyl group, nitro group, carboxyl group, acyloxy

group, or substituted or unsubstituted amino group, phenyl group or naphthyl group; the substituent in the alkyl group, amino group, phenyl group or naphthyl group is a straight or branched chain alkyl group having 1-10 carbon atoms, halogen atom, alkoxy group, hydroxyl group, nitro group, benzoyl group, carboxyl group, acyl group, methylthio group or sulfonic acid group; provided that A, B, C and $(CH_2)_n$-DH are not the same with each other at the same time; and n is 1 or 0, and * denotes asymmetric carbon.

70. (New) The process for producing optically active 4-amino-2-methylbutane-1-ol according to claim 63 wherein the diastereomeric salt of optically active 4-amino-2-methylbutane-1-ol and an optically active reagent for optical resolution is a salt of optically active 4-amino-2-methylbutane-1-ol with an optically active 2-aryl-2-substituted acetic acid represented by the following formula (5)

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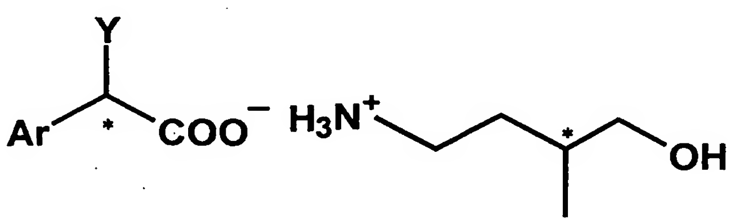
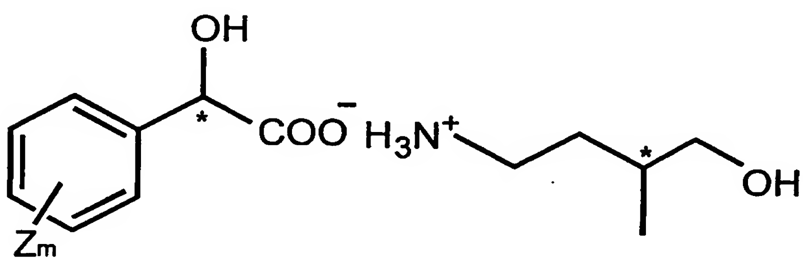


.... (5)

wherein Y denotes a straight or branched chain alkyl group having 1-10 carbon atoms, halogen atom, alkoxy group, acyloxy group or hydroxyl group; Ar denotes a substituted or unsubstituted phenyl group or naphthyl group; the substituent is a straight or branched chain alkyl group having 1-10 carbon atoms, halogen atom, alkoxy group, hydroxyl group, nitro group, benzoyl group, carboxyl group, methylthio group or sulfonic acid group, and * denotes asymmetric carbon.

71. (New) The process for producing optically active 4-amino-2-methylbutane-1-ol according to claim 63 wherein the diastereomeric salt of optically active 4-amino-2-methylbutane-1-ol and an optically active reagent for optical resolution is a salt of optically active 4-amino-2-methylbutane-1-ol with an optically active mandelic acid derivative represented by the formula (6)



.... (6)

wherein Z denotes hydrogen or a straight or branched chain alkyl group having 1-10 carbon atoms, halogen atom, alkoxy group, hydroxyl group, nitro group, methylthio group or benzoyl group; * denotes asymmetric carbon; m is an integer of from 1 to 5 and; when m ≥ 2, Z may be same as or different from each other.

A2

72. (New) A process for recovering an optically active reagent for optical resolution used in producing optically active 4-amino-2-methylbutane-1-ol which comprises: bringing a diastereomeric salt of optically active 4-amino-2-methylbutane-1-ol and an optically active optically resolving agent into contact with a solvent and an alkali to decompose the salt, subjecting the resulting reaction mixture to solid-liquid separation to obtain a filtration residue containing an alkali salt of the optically active reagent for optical resolution, bringing the filtration residue into contact with a solvent and an acid to crystallize out an optically active reagent for optical resolution, and subjecting the optically active reagent for optical resolution thus crystallized out to solid-liquid separation to recover it.

73. (New) The recovering process according to claim 72 wherein the diastereomeric salt of optically active 4-amino-2-methylbutane-1-ol and an optically active reagent for optical resolution is brought into contact with a solvent and an alkali to decompose the salt, the solvent is replaced with an alcohol in which a solubility of an alkali salt of the optically active reagent for optical resolution is low, and an alkali salt of the optically active reagent for optical resolution and an optically active 4-amino-2-methylbutane-1-ol solution are subjected to solid-liquid separation to recover the alkali salt of the optically active reagent for optical resolution.

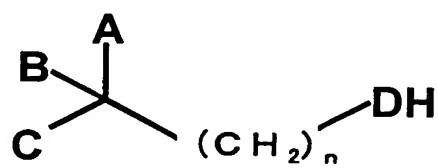
74. (New) The recovering process according to claim 72 wherein the diastereomeric salt of optically active 4-amino-2-methylbutane-1-ol and an optically active reagent for optical resolution is brought into contact with an alcohol and an alkali metal alcoholate to decompose the salt, the alcohol is replaced with an alcohol in which a solubility of an alkali metal salt of the optically active reagent for optical resolution is low, and an alkali metal salt of the optically active reagent for optical resolution and an optically active 4-amino-2-methylbutane-1-ol solution are subjected to solid-liquid separation to recover the alkali metal salt of the optically active reagent for optical resolution.

75. (New) The recovering process according to claim 72 wherein the diastereomeric salt of optically active 4-amino-2-methylbutane-1-ol and an optically active reagent for optical resolution is brought into contact with water and/or alcohol and an alkali metal hydroxide to decompose the salt, the water and/or alcohol are replaced with an alcohol in which a solubility of an alkali metal salt of the optically active reagent for optical resolution is low, and an alkali metal salt of the optically active reagent for optical resolution and an

optically active 4-amino-2-methylbutane-1-ol solution are subjected to solid-liquid separation to recover the alkali metal salt of the optically active reagent for optical resolution.

76. (New) The recovering process according to claim 72 wherein the optically active reagent for optical resolution is an optically active organic acid.

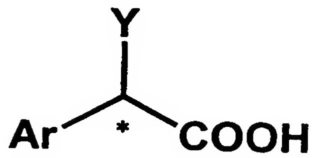
77. (New) The recovering process according to claim 72 wherein the optically active reagent for optical resolution is an optically active carboxylic acid, optically active sulfonic acid or optically active phosphonic acid represented by formula (1)



.... (1)

wherein D denotes COO^-, SO_3^- or PO_3H^-; A, B and C each denote hydrogen, a substituted or unsubstituted, straight or branched chain alkyl group having 1-10 carbon atoms, halogen atom, alkoxy group, hydroxyl group, nitro group, carboxyl group, acyloxy group, or substituted or unsubstituted amino group, phenyl group or naphthyl group; the substituent in the alkyl group, amino group, phenyl group or naphthyl group is a straight or branched chain alkyl group having 1-10 carbon atoms, halogen atom, alkoxy group, hydroxyl group, nitro group, benzoyl group, carboxyl group, acyl group, methylthio group or sulfonic acid group; provided that A, B, C and $(CH_2)_n$-DH are not the same with each other at the same time; and n is 1 or 0, and * denotes asymmetric carbon.

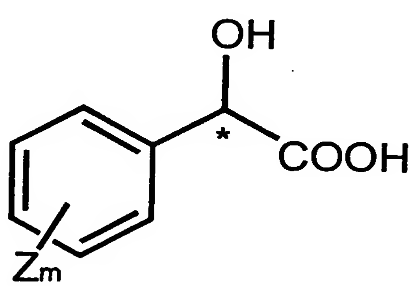
78. (New) The recovering process according to claim 72 wherein the optically active reagent for optical resolution is an optically active 2-aryl-2-substituted acetic acid represented by formula (2)



.... (2)

wherein Y denotes a straight or branched chain alkyl group having 1-10 carbon atoms, halogen atom, alkoxy group, acyloxy group or hydroxyl group; Ar denotes a substituted or unsubstituted phenyl group or naphthyl group; the substituent is a straight or branched chain alkyl group having 1-10 carbon atoms, halogen atom, alkoxy group, hydroxyl group, nitro group, benzoyl group, carboxyl group, methylthio group or sulfonic acid group, and * denotes asymmetric carbon.

79. (New) The recovering process according to claim 72 wherein the optically active reagent for optical resolution is an optically active mandelic acid derivative represented by formula (3)



.... (3)

wherein Z denotes hydrogen or a straight or branched chain alkyl group having 1-10 carbon atoms, halogen atom, alkoxy group, hydroxyl group, nitro group, methylthio group or benzoyl group; * denotes asymmetric carbon; m is an integer of from 1 to 5 and; when m ≥ 2, Z may be same as or different from each other.

80. (New) A process for producing optically active 4-amino-2-methylbutane-1-ol by reusing the optically active reagent for optical resolution recovered by the recovering process according to claim 72.

81. (New) A process for using the optically active 4-amino-2-methylbutane-1-ol obtained by the process according to claim 1 as an intermediate in synthesizing optically active medicines or pesticides.

82. (New) A process for producing optically active medicines or pesticides by using the optically active 4-amino-2-methylbutane-1-ol obtained by the process according to claim 1.